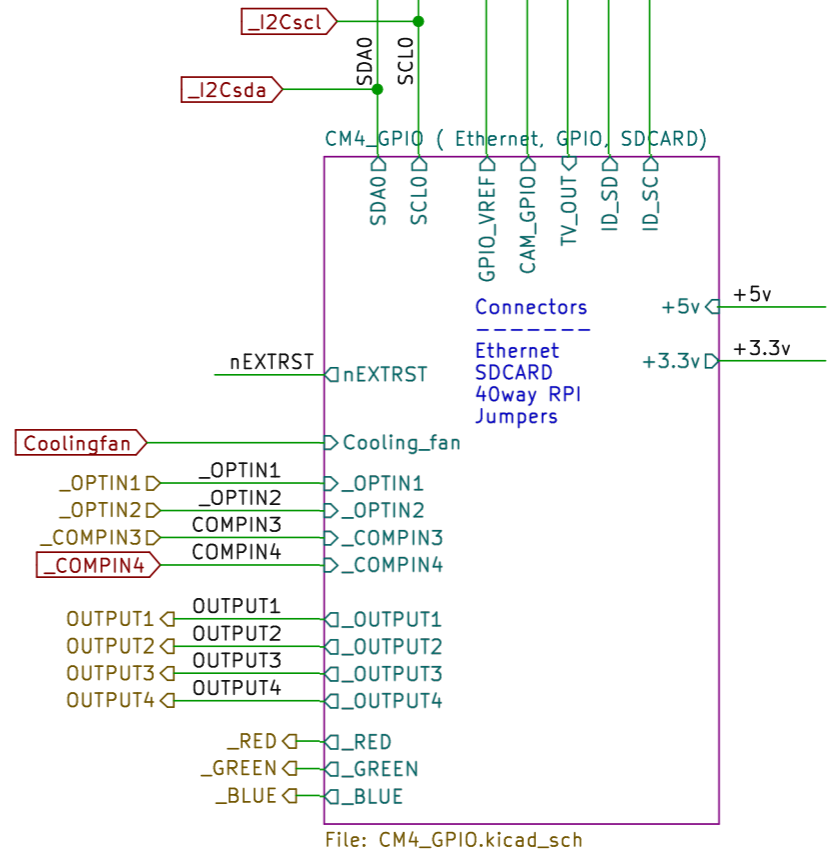
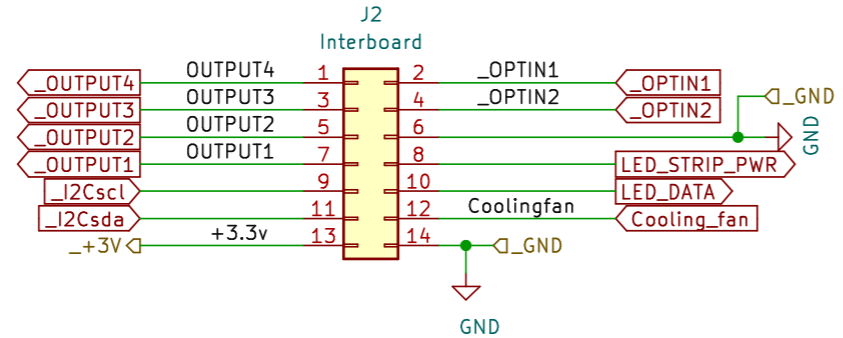
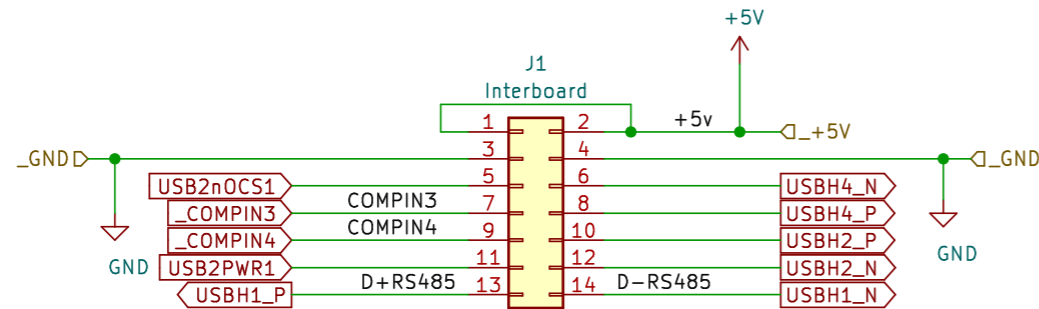
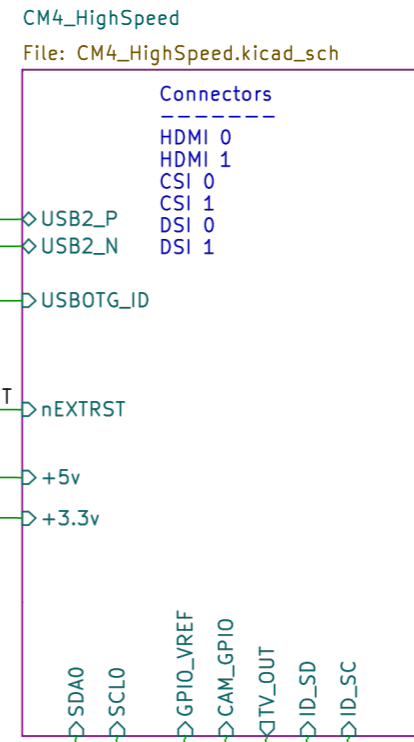
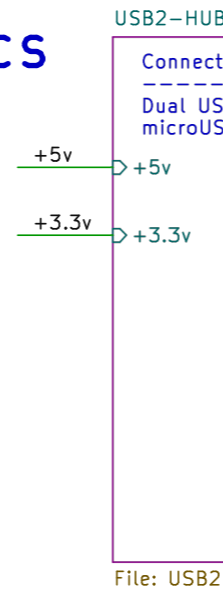
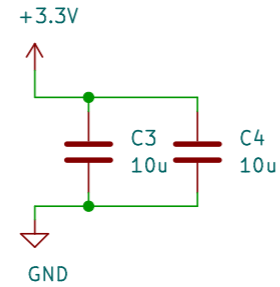


Utility Control Unit mainboard schematics



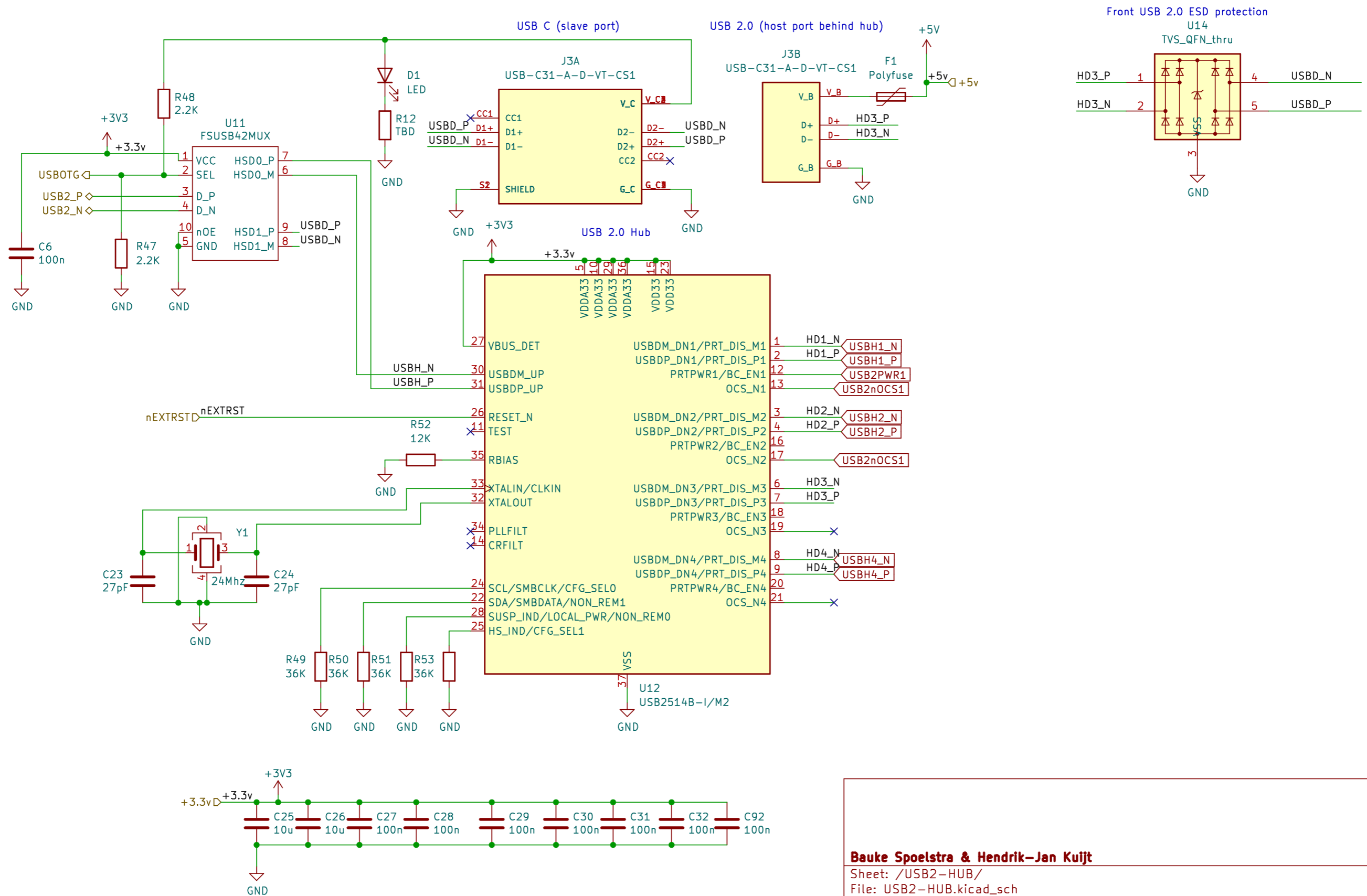
Bauke Spoelstra & Hendrik-Jan Kuijt

Sheet: /
File: mainboard.kicad_sch

Title: Mainboard overview

Size: A4	Date:	Rev: 0.1
KiCad E.D.A. kicad 6.0.4-6f826c9f35-116-ubuntu20.04.1		Id: 1/4

USB 2.0 hub & host/slave mux

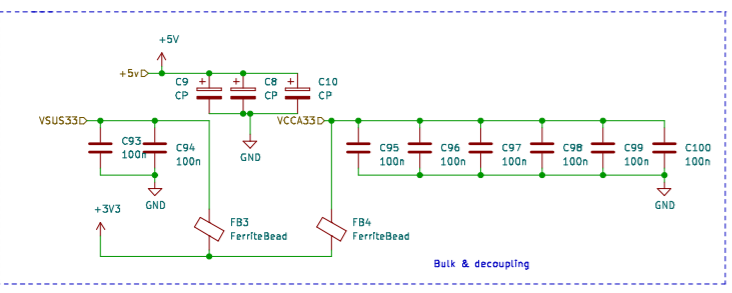
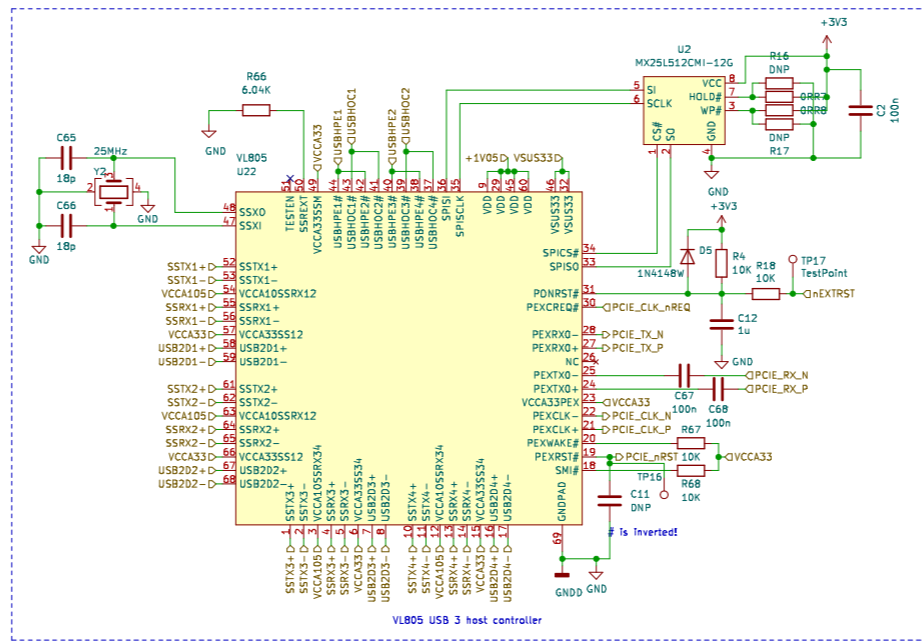
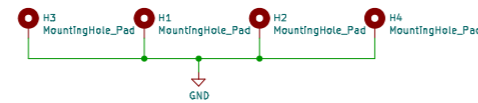


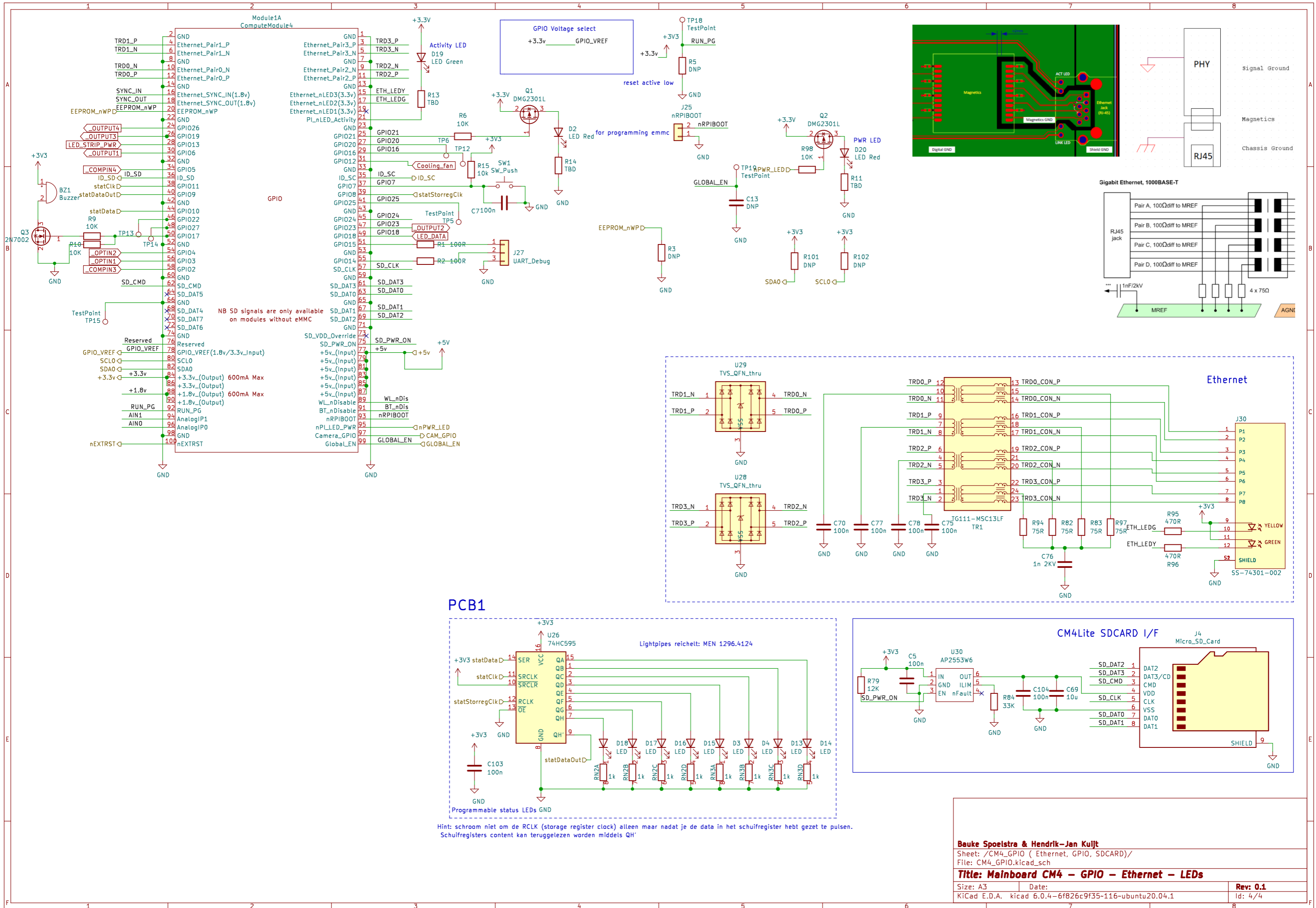
Bauke Spoelstra & Hendrik-Jan Kuijt
 Sheet: /USB2-HUB/
 File: USB2-HUB.kicad_sch
Title: Mainboard USB 2.0 hub + host/slave hub
 Size: A4 Date: **Rev: 0.1**
 KiCad E.D.A. kicad 6.0.4-6f826c9f35-116-ubuntu20.04.1 Id: 2/4

High speed IO

Module18
ComputeModule4
Hirose
Zell DF40C-100DS-0-4V

PCIE_CLK_nREQ	102	PCIE_CLK_nREQ	102	USB_OTG_ID	101	USB_OTG_ID	101
PCIE_CLK_P	104	PCIE_CLK_P	104	USB2_N	103	USB2_N	103
PCIE_CLK_N	106	PCIE_CLK_N	106	USB2_P	105	USB2_P	105
PCIE_RX_P	110	PCIE_RX_P	110	GND	107	GND	107
PCIE_RX_N	112	PCIE_RX_N	112	PCIE_nRST	109	PCIE_nRST	109
PCIE_TX_P	114	PCIE_TX_P	114	VDDC_COMP	111	VDDC_COMP	111
PCIE_TX_N	116	PCIE_TX_N	116	GND	113	GND	113
CAM0_DD_N	120	CAM0_DD_N	120	CAM1_DO_N	115	CAM1_DO_N	115
CAM0_DD_P	122	CAM0_DD_P	122	CAM1_DO_P	117	CAM1_DO_P	117
CAM0_D1_N	124	CAM0_D1_N	124	CAM1_D1_N	119	CAM1_D1_N	119
CAM0_D1_P	126	CAM0_D1_P	126	CAM1_D1_P	121	CAM1_D1_P	121
CAM0_C_N	128	CAM0_C_N	128	CAM1_C_N	123	CAM1_C_N	123
CAM0_C_P	130	CAM0_C_P	130	CAM1_C_P	125	CAM1_C_P	125
CAM0_D2_N	132	CAM0_D2_N	132	CAM1_D2_N	127	CAM1_D2_N	127
CAM0_D2_P	134	CAM0_D2_P	134	CAM1_D2_P	129	CAM1_D2_P	129
CAM0_C3_N	136	CAM0_C3_N	136	CAM1_C3_N	131	CAM1_C3_N	131
CAM0_C3_P	138	CAM0_C3_P	138	CAM1_C3_P	133	CAM1_C3_P	133
CAM0_D3_N	140	CAM0_D3_N	140	CAM1_D3_N	135	CAM1_D3_N	135
CAM0_D3_P	142	CAM0_D3_P	142	CAM1_D3_P	137	CAM1_D3_P	137
HDMI1_D2_P	144	HDMI1_D2_P	144	HDMI1_D3_N	139	HDMI1_D3_N	139
HDMI1_D2_N	146	HDMI1_D2_N	146	HDMI1_D3_P	141	HDMI1_D3_P	141
HDMI1_D1_P	148	HDMI1_D1_P	148	HDMI1_SDA	143	HDMI1_SDA	143
HDMI1_D1_N	150	HDMI1_D1_N	150	HDMI1_SCL	145	HDMI1_SCL	145
HDMI1_D0_P	152	HDMI1_D0_P	152	HDMI1_CEC	147	HDMI1_CEC	147
HDMI1_D0_N	154	HDMI1_D0_N	154	HDMI10_CEC	149	HDMI10_CEC	149
HDMI1_CK_P	156	HDMI1_CK_P	156	HDMI10_CEC	151	HDMI10_CEC	151
HDMI1_CK_N	158	HDMI1_CK_N	158	HDMI10_HDTPLUG	153	HDMI10_HDTPLUG	153
HDMI10_D2_P	160	HDMI10_D2_P	160	DSIO_DD_N	155	DSIO_DD_N	155
HDMI10_D2_N	162	HDMI10_D2_N	162	DSIO_DD_P	157	DSIO_DD_P	157
HDMI10_D1_P	164	HDMI10_D1_P	164	DSIO_D1_N	159	DSIO_D1_N	159
HDMI10_D1_N	166	HDMI10_D1_N	166	DSIO_D1_P	161	DSIO_D1_P	161
HDMI10_CK_P	168	HDMI10_CK_P	168	DSIO_C_N	163	DSIO_C_N	163
HDMI10_CK_N	170	HDMI10_CK_N	170	DSIO_C_P	165	DSIO_C_P	165
DSIO_D3_N	172	DSIO_D3_N	172	DSIO_D0_N	167	DSIO_D0_N	167
DSIO_D3_P	174	DSIO_D3_P	174	DSIO_D0_P	169	DSIO_D0_P	169
DSIO_D2_N	176	DSIO_D2_N	176	DSIO_D1_N	171	DSIO_D1_N	171
DSIO_D2_P	178	DSIO_D2_P	178	DSIO_D1_P	173	DSIO_D1_P	173
DSIO_C3_N	180	DSIO_C3_N	180	DSIO_C_N	175	DSIO_C_N	175
DSIO_C3_P	182	DSIO_C3_P	182	DSIO_C_P	177	DSIO_C_P	177
DSIO_C2_N	184	DSIO_C2_N	184	DSIO_C3_N	179	DSIO_C3_N	179
DSIO_C2_P	186	DSIO_C2_P	186	DSIO_C3_P	181	DSIO_C3_P	181
DSIO_C1_N	188	DSIO_C1_N	188	DSIO_C2_N	183	DSIO_C2_N	183
DSIO_C1_P	190	DSIO_C1_P	190	DSIO_C2_P	185	DSIO_C2_P	185
DSIO_D2_N	192	DSIO_D2_N	192	DSIO_C1_N	187	DSIO_C1_N	187
DSIO_D2_P	194	DSIO_D2_P	194	DSIO_C1_P	189	DSIO_C1_P	189
DSIO_D1_N	196	DSIO_D1_N	196	DSIO_D2_N	191	DSIO_D2_N	191
DSIO_D1_P	198	DSIO_D1_P	198	DSIO_D2_P	193	DSIO_D2_P	193
HDMI10_SCL	200	HDMI10_SCL	200	DSIO_D1_N	195	DSIO_D1_N	195
				DSIO_D1_P	197	DSIO_D1_P	197
				DSIO_D0_N	199	DSIO_D0_N	199
				DSIO_D0_P	201	DSIO_D0_P	201





Hint: schroom niet om de RCLK (storage register clock) alleen maar nadat je de data in het schuifregister hebt gezet te pulsen. Schuifregisters content kan teruggelezen worden middels QH'